

REMARKS/ARGUMENTS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 1-5, 14 and 16-29 are now pending.

Claims 6-13 and 15 were withdrawn from further consideration as drawn to non-elected species. Claims 6-13 and 15 have been canceled above to advance prosecution. Applicant reserves the right to file a divisional application directed to the non-elected and now canceled claims.

Claims 1-4 and 14 were rejected under 35 USC 102(e) as being anticipated by Xu ('385). Applicant respectfully traverses this rejection.

With reference to the elected embodiment of Figure 10, and the cross-sectional views of the injection hole plate, by way of illustrative example, claim 1 has been amended above to now recite more specifically that an upstream end of the second-side hole section 54 is covered with a cover portion 56, and that the at least one first-side hole section 58 penetrates through the cover portion 56 such that the at least one first-side hole section discharges fuel into the second-side hole section in a manner that forms a swirl fuel flow in the second-side hole section. Thus, with the arrangement of the invention as recited in claim 1, swirl flow is not created in the at least one first-side hole section. Rather, the swirl flow is created in the second-side hole section by virtue of the discharge of fuel from the first-side hole section into the second-side hole section.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986). While other references may be used to interpret an allegedly anticipating reference, anticipation must be found in a single reference. See, e.g., Studiengesellschaft Kohle,

G.m.b.H. v. Dart Indus., Inc., 726 F.2d 724, 726-27 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. See, e.g., Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 715 (Fed. Cir. 1984). Anticipation is not shown even if the differences between the claims and the prior art reference are insubstantial and the missing elements could be supplied by the knowledge of one skilled in the art. See, e.g., Structural Rubber Prods., 749 F.2d at 716-17.

In contrast to the invention defined in applicant's amended claim 1, in Xu '385, swirl flow is already created in the first-side hole section 32 through the radial channel 38, and the swirl fuel flow of the first-side hole section 32 is supplied into the second-side hole section 34. This difference is due to the structural differences between the injection hole plate defined in claim 1 and the injection hole plate of Xu. More specifically, in Xu, the first-side hole section 32 is not formed so as to create the swirl fuel flow in the second-side hole section. In contrast, the first-side hole section 58 as defined in applicant's amended claim 1 penetrates through the cover portion 56 which covers the upstream end of the second-side hole section 54, such that the first-side hole section 58 discharges fuel into the second-side hole section 54 in a manner that forms the swirl fuel flow in the second-side hole section. With the configuration recited in applicant's amended claim 1, the swirl fuel flow is effectively created in the second-side hole section by means of the first-side hole section. Since Xu does not teach or suggest the above described configuration recited in applicant's amended claim 1, it is respectfully submitted that claim 1 and the claims dependent therefrom are not anticipated by nor obvious from Xu.

Claim 2 recites that the at least one first-side hole section of each injection hole includes a plurality of first-side hole sections 58. Although Xu discloses a plurality of injection holes, it is understood that each injection hole of Xu has only a single first-side hole section 32. Thus, there is no teaching in Xu of a plurality of first side hole sections as recited in applicant's claim 2, providing a plurality of first-side hole sections as

recited in applicant's claim 2 promotes the creation of the swirl fuel flow in the second-side hole section as compared to providing only a single first-side hole section. It is therefore respectfully submitted that claim 2 is not anticipated by nor obvious from Xu either.

Claim 14 has been amended in a manner similar to claim 1 so that claim 14 is submitted to be patentable as well. New claim 16 depends from claim 14 and recites a feature similar to that recited in claim 2. Claim 16 is submitted to be patentable over Xu for the reasons advanced with respect to claim 14 and also for the reasons advanced above with respect to claim 2. It is therefore respectfully submitted that claim 16 should be allowable as well.

New independent claim 24 is similar to allowable claim 5 in that it recites the patentable feature that a swirl direction of the swirl fuel flow in one of each adjacent two second-side sections is opposite to a swirl direction of the swirl fuel flow in the other one of each adjacent two second-side hole sections. It is submitted that claim 24 should therefore be patentable at least for the same reasons as claim 5 and for the further distinguishing feature of the alternating swirl directions.

The remaining new claims recite further distinguishing characteristics of example embodiments.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

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Respectfully submitted,

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